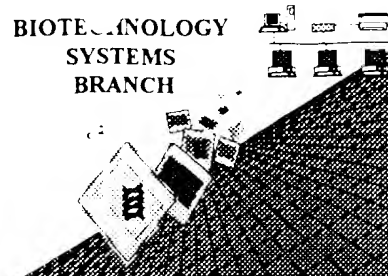


0590
0808



RAW SEQUENCE LISTING **ERROR REPORT**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/911,826
Source: OIPK
Date Processed by STIC: 8/7/2001

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of-the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 - 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:

<http://www.uspto.gov/web/offices/pac/checker>

Raw Sequence Listing Error Summary

ERROR DETECTED

SUGGESTED CORRECTION

SERIAL NUMBER:

09/911,826

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

1 _____ Wrapped Nucleics
_____ Wrapped Aminos

The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."

2 _____ Invalid Line Length

The rules require that a line not exceed 72 characters in length. This includes white spaces.

3 _____ Misaligned Amino
_____ Numbering

The numbering under each 5* amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.

4 _____ Non-ASCII

The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.

5 _____ Variable Length

Sequence(s) _____ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>.<223> section that some may be missing.

6 _____ PatentIn 2.0
_____ "bug"

A "bug" in PatentIn version 2.0 has caused the <220>.<223> section to be missing from amino acid sequence(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>.<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>.<223> sections for Artificial or Unknown sequences.

7 _____ Skipped Sequences
_____ (OLD RULES)

Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
(i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped

Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.

8 _____ Skipped Sequences
_____ (NEW RULES)

Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence:
<210> sequence id number
<400> sequence id number
000

9 _____ Use of n's or Xaa's
_____ (NEW RULES)

Use of n's and/or Xaa's have been detected in the Sequence Listing.
Per 1.823 of Sequence Rules, use of <220>.<223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

10 _____ Invalid <213>
_____ Response

Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>.<223> section is required when <213> response is Unknown or is Artificial Sequence

11 _____ Use of <220>

Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)

12 _____ PatentIn 2.0
_____ "bug"

Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

13 _____ Misuse of n

n can only be used to represent a single nucleotide in a nucleic acid sequence. N is not used to represent any value not specifically a nucleotide.

OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/911,826

DATE: 08/07/2001

TIME: 13:57:06

Input Set : A:\sequence-as filed.txt

Output Set: N:\CRF3\08072001\I911826.raw

3 <110> APPLICANT: HSC Research Development Limited Partnership et al.
 5 <120> TITLE OF INVENTION: RAS Activator Nucleic Acid Molecules, Polypeptides and
 6 Methods of Use
 8 <130> FILE REFERENCE: 1786/0019
 C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/911,826
 11 <141> CURRENT FILING DATE: 2001-07-20
 13 <150> PRIOR APPLICATION NUMBER: 2,259,530
 14 <151> PRIOR FILING DATE: 1999-01-20
 16 <160> NUMBER OF SEQ ID NOS: 27
 18 <170> SOFTWARE: PatentIn Ver. 2.1

ERRORED SEQUENCES

Does Not Comply
 Corrected Diskette Needed

646 <210> SEQ ID NO: 4
 647 <211> LENGTH: 186
 648 <212> TYPE: PRT
 649 <213> ORGANISM: Homo sapiens
 701 <400> SEQUENCE: 4
 702 Thr Lys Gly Asn Lys Ser Trp Ser Ser Thr Ala Val Ala Ala Ala Leu
 703 1 5 10 15
 705 Glu Leu Val Asp Pro Pro Gly Cys Arg Asn Ser Ser Gly Gly Lys Asp
 706 20 25 30
 708 Val Ser Ala Glu Ala Glu Ser Ser Ser Met Val Pro Val Thr Thr Glu
 709 35 40 45
 711 Glu Ala Lys Pro Val Pro Met Pro Ala His Ile Ala Val Thr Pro Ser
 712 50 55 60
 714 Thr Thr Lys Gly Leu Ile Ala Arg Lys Glu Gly Arg Tyr Arg Glu Pro
 715 65 70 75 80
 717 Pro Pro Thr Pro Pro Gly Tyr Val Gly Ile Pro Ile Ala Asp Phe Pro
 718 85 90 95
 720 Glu Gly Pro Cys His Pro Ala Arg Lys Pro Pro Asp Tyr Asn Val Ala
 721 100 105 110
 723 Leu Gln Arg Ser Arg Met Val Ala Arg Pro Thr Ala Ala Pro Ala Pro
 724 115 120 125
 726 Gly Gln Thr Pro Pro Ala Ala Ala Ala Pro Arg Pro Gly Ser Lys Pro
 727 130 135 140
 729 Gln Trp His Lys Pro Ser Asp Ala Asp Ile Arg Leu Ala Pro Phe Gln
 730 145 150 155 160
 732 Ala Ala Ser His Ser Gly Thr Ser Pro Ala Thr Gln Thr His Ala Ser
 733 165 170 175
 735 Arg Pro Ser Arg Gln Ala Ser Gln His Arg Arg Arg Thr Lys Met Asn
 736 180 185 190
 E--> 738 Lys Cys Leu Leu Phe Glu Ala Gln Ala Pro Xaa Ser Thr Val Ser His
 739 195 200 205
 741 Pro Lys Glu Ser Thr Arg Arg Arg Ile Lys Ile Thr Ser Leu Gly Thr
 742 210 215 220

→ see
 item 9 on
 Error
 Summary
 sheet 8701

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/911,826

DATE: 08/07/2001

TIME: 13:57:16

Input Set : A:\sequence-as filed.txt

Output Set: N:\CRF3\08072001\I911826.raw

```

E--> 744 His Ile Xaa Gly Trp Trp Thr Ser Leu Pro Pro Ser Leu Pro Xaa Ser
      745 225                230                240
      747 Ser Met Gly Leu Leu Leu Pro Phe Phe Leu Ser Pro Leu His Val Lys
      748                245                255
E--> 750 Tyr Cys Glu Glu Ile Ala Leu Ala Leu Cys Arg Leu Val Ala Xaa Asn
      751                260                270
E--> 753 Ala Gln Pro Ser Ser Pro Xaa Ala Ala Cys His Val Thr
      754                275                285
      757 <110> SEQ ID NO: 5
      758 <111> LENGTH: 245
      759 <112> TYPE: PRT
      760 <113> ORGANISM: Homo sapiens
      761 <1400> SEQUENCE: 5
E--> 763 Leu Lys Gly Thr Lys Ala Gly Ala Pro Pro Arg Trp Arg Pro Leu Xaa
      764 1 5 10 15
E--> 766 Asn Xaa Trp Ile Pro Arg Ala Ala Gly Ile Gln Ala Val Gly Arg Met
      767 20 25 30
E--> 769 Ser Pro Leu Arg Gln Arg Ala Ala Ala Trp Cys Pro Xaa Leu Gln Arg
      770 35 40 45
E--> 772 Lys Pro Asn Leu Ser Leu Cys Leu Pro Thr Xaa Leu Xaa Arg Arg Ala
      773 50 55 60
      775 Leu Pro Arg Asp Ser Ser His Gly Arg Lys Ala Gly Thr Gly Ser Arg
      776 65 70 75 80
      778 Leu Pro His Leu Gln Ala Thr Trp Ala Ser Pro Leu Pro Ile Ser Gln
      779 85 90 95
      781 Lys Gly Leu Ala Thr Arg Pro Gly Ser Pro Arg Ile Thr Thr Trp Pro
      782 100 105 110
      784 Cys Ser Gly Pro Ala Trp Trp His Gly Pro Leu Arg Pro Arg His Arg
      785 115 120 125
      787 Ala Arg Arg Arg Leu Gln Pro Gln Pro Ala Gly Arg Arg Leu Arg Arg
      788 130 135 140
E--> 790 Ser Gly Gly Gly Arg Arg Xaa Thr Ser Val Cys Cys Leu Arg Arg Arg
      791 145 150 155 160
E--> 793 Leu Leu Asp Pro Gln Xaa Ala Thr Gln Arg Arg Ala Gln Glu Asp Val
      794 165 170 175
      796 Pro Ser Leu Gly Ala Leu Ala Arg Thr Ser Glu Asp Gly Gly Pro Val
      797 180 185 190
      799 Cys Leu Leu Pro Cys Leu Lys Ala Ala Trp Gly Phe Phe Ser Pro Ser
      800 195 200 205
E--> 802 Ser Phe Pro Leu Cys Met Xaa Asn Thr Val Lys Lys Leu Pro Trp His
      803 210 215 220
      805 Phe Ala Asp Leu Leu Leu Glu Met His Ser Pro Ala Ala Pro Glu Leu
      806 225 230 235 240
      808 Leu Pro Ala Thr Ser
      809 245
      812 <110> SEQ ID NO: 6
      813 <111> LENGTH: 206
      814 <112> TYPE: PRT
      815 <113> ORGANISM: Homo sapiens

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/911,826

DATE: 08/07/2001

TIME: 13:57:16

Input Set : A:\sequence-as filed.txt

Output Set: N:\CRF3\08072001\I911826.raw

817 <400> SEQUENCE: 6

E--> 818 Xaa Arg Glu Gln Lys Leu Glu Leu His Arg Gly Gly Gly Arg Ser Arg
 819 1 5 10
 821 Thr Ser Gly Ser Pro Gly Leu Gln His His Lys Arg Trp Glu Gly Cys
 822 15 20 25 30
 E--> 824 Leu Arg Xaa Gly Arg Glu Gln Gln His Gly Ala Arg Asp Tyr Arg Gly
 825 35 40 45
 827 Ser Gln Thr Cys Pro Tyr Ala Cys Pro His Ser Cys Asp Ala His His
 828 50 55 60
 830 Tyr Gln Gly Thr His Arg Thr His Gly Arg Gln Val Ile Gly Ala Ala
 831 65 70 75 80
 833 Ser His Thr Ser Arg Leu Arg Gly His Pro His Cys Arg Phe Pro Arg
 834 85 90 95
 836 Arg Ala Leu Pro Pro Gly Gln Glu Ala Pro Gly Leu Gln Arg Gly Pro
 837 100 105 110
 E--> 839 Ala Ala Val Pro His Gly Gly Thr Ala His Xaa Gly Pro Gly Thr Gly
 840 115 120 125
 842 Pro Asp Ala Ala Cys Ser Arg Ser Gln Pro Ala Gly Gln Gln Ala Thr
 843 130 135 140
 845 Val Ala Gln Ala Gln Arg Arg Arg Pro Thr Pro Arg Ala Leu Pro Gly
 846 145 150 155 160
 848 Ala Gly Phe Ala Gly Ala Glu Glu Asp Glu Asp Glu Gln Val Ser Ala
 849 165 170 175
 E--> 851 Val Xaa Gly Ala Gly Ser Leu Ile His Ser Glu Pro Pro Lys Gly Glu
 852 180 185 190
 854 His Lys Lys Thr Ser Gln Ala Leu Glu Pro Trp His Ala His Leu Arg
 855 195 200 205
 857 Met Val Asp Gln Phe Ala Ser Phe Pro Ala Leu Lys Gln His Gly Ala
 858 210 215 220
 E--> 860 Ser Ser Pro Leu Leu Pro Phe Pro Phe Ala Cys Glu Ile Leu Xaa Arg
 861 225 230 235 240
 863 Asn Cys Pro Gly Thr Leu Gln Thr Cys Cys Leu Lys Cys Thr Ala Gln
 864 245 250 255
 866 Gln Pro Leu Ser Cys Cys Leu Pro Arg His
 867 260 265

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/911,826

DATE: 08/07/2001

TIME: 13:57:07

Input Set : A:\sequence-as filed.txt

Output Set: N:\CRF3\08072001\I911826.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application Number
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:406 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1
L:738 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:4
M:340 Repeated in SeqNo=4
L:763 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:5
M:340 Repeated in SeqNo=5
L:818 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:6
M:340 Repeated in SeqNo=6
L:1235 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:15
L:1235 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:15
L:1235 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15